



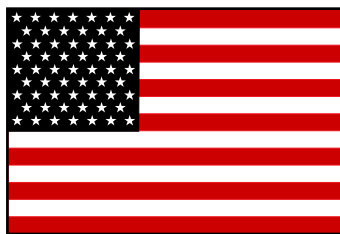
U.S. Department
of Transportation
**Federal Aviation
Administration**

AFS-600

Regulatory Support Division

ADVISORY CIRCULAR 43-16A

AVIATION MAINTENANCE ALERTS



ALERT
NUMBER
303



OCTOBER
2003

CONTENTS

AIRPLANES

BEECH	1
CESSNA	2
PIPER	3

POWERPLANTS AND PROPELLERS

TELEDYNE CONTINENTAL MOTOR	4
----------------------------------	---

AIR NOTES

ELECTRONIC VERSION OF MALFUNCTION OR DEFECT REPORT	4
SERVICE DIFFICULTY REPORTING PROGRAM	5
IF YOU WANT TO CONTACT US	6
AVIATION SERVICE DIFFICULTY REPORTS	6

**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON, DC 20590**

AVIATION MAINTENANCE ALERTS

The Aviation Maintenance Alerts provide a common communication channel through which the aviation community can economically interchange service experience and thereby cooperate in the improvement of aeronautical product durability, reliability, and safety. This publication is prepared from information submitted by those who operate and maintain civil aeronautical products. The contents include items that have been reported as significant, but which have not been evaluated fully by the time the material went to press. As additional facts such as cause and corrective action are identified, the data will be published in subsequent issues of the Alerts. This procedure gives Alerts' readers prompt notice of conditions reported via Malfunction or Defect Reports. Your comments and suggestions for improvement are always welcome. Send to: FAA; ATTN: Aviation Data Systems Branch (AFS-620); P.O. Box 25082; Oklahoma City, OK 73125-5029.

AIRPLANES

BEECH

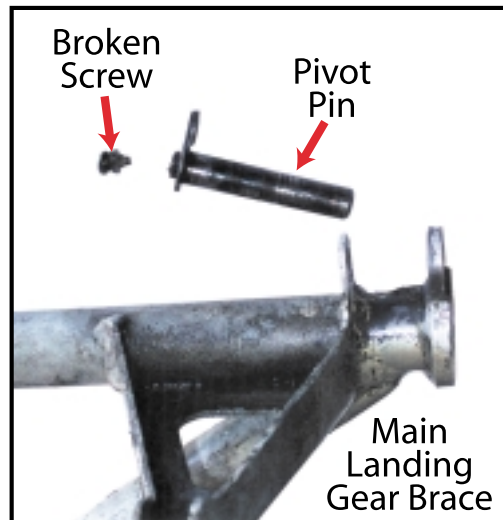
Beech; Model 95-B55 (T42A); Baron; Main Landing Gear Retract Brace Failure; ATA 3230

The right main landing gear collapsed during the rollout and damaged the right flap, wingtip, brake assembly, and propeller.

The technician discovered the screw (AN515-8-8), which secures the landing gear retract brace pin in place, broke and allowed the pin to back out. The retract brace became loose and allowed the downlock to unlatch. (Refer to the illustration.)

A search of the FAA Service Difficulty Reporting Program data base revealed five additional reports with like failures.

Part total time-6,350 hours.



Beech; Model 99A; Cracked Elevator Torque Tube; ATA 2730

During a scheduled tail section inspection, the technician discovered that the elevator torque tube (P/N 115-610010-325) casting had cracked.

The submitter speculated this condition occurred as a result of normal operation. He did not find any other discrepancies.

A search of the FAA Service Difficulty Reporting Program data base revealed 21 additional reports with like failures on the Beech 99A and Beech 100 group, elevator torque tube. The majority of the reports cited cracks at the taper pinhole at the inboard casting.

Part total time-33,648 hours.

CESSNA

Cessna; Model 208B; Super Cargomaster; Brake Master Cylinder Failure; ATA 3243

During taxi, the right brake dragged causing the brake caliper to overheat, which resulted in a fire and tire damage.

An investigation revealed the brake fluid did not return to the brake reservoir when the brake was released.

The submitter recommends overhauling the master cylinder (P/N 2682001-1) at 1,000-hour intervals.

Part total time-8,641 hours.

Cessna; Model T-310Q; Nose Landing Gear Idler Bellcrank Failure; ATA 3230

The idler bellcrank (P/N 08421022) for the nose landing gear retraction linkage broke when the landing gear was selected to the up position. The pilot was unable to extend the nose gear. Upon landing, the nose gear retracted into the wheel well.

The technician discovered the idler bellcrank broke and caused the nose gear to be disconnected from the gearbox.

The submitter suspects improper rigging of the landing gear caused excessive stress on the bellcrank. He also stated that mechanics need to remember that due to the design of the landing gear system on the twin engine Cessnas, any adjustments made to any of the many components of the landing gear effects the entire system and requires a complete recheck of the landing gear rigging.

A search of the FAA Service Difficulty Reporting Program data base revealed 13 additional reports on the idler bellcrank (P/N 08421022), which is also used on the Cessna 320s.

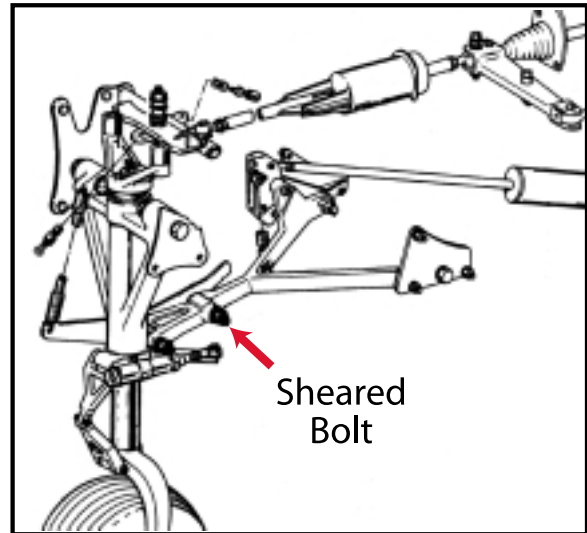
Part total time-2,075 hours.

PIPER**Piper; Model PA-44-180; Seminole; Nose Landing Gear Center Drag Link Bolt Failure; ATA 3230**

During touchdown the nose landing gear collapsed resulting in damage to the nose of the aircraft, both engines, and both propellers.

After examining the nose gear, the technician discovered the center drag link bolt (NAS464P4-27) was sheared in the center and the downlock hook was broken in half. (Refer to the illustration.)

Part total time-5,942 hours.



Piper; Model PA-44-180; Seminole; Cracked Carburetor Airbox; ATA 7160

During a scheduled inspection, the technician discovered cracks in the right engine carburetor airbox (P/N 86245-0360). The cracks were located adjacent to three of the four carburetor mounting holes.

The submitter stated that this was the second airbox failure in his fleet. He also stated the cracks were located in the same area.

Part total time-125 hours.

POWERPLANTS AND PROPELLERS

TELEDYNE CONTINENTAL MOTOR

Teledyne Continental Motor; Model IO-550-G; Throttle Control Lever Failure; ATA 7322

A Malfunction or Defect Report stated that the throttle control lever (P/N 646224A) wore out at a bolt hole and caused the throttle cable to come free. (Refer to the illustration.)

According to the submitter, the pressed in bushing at the end of the throttle arm failed.

Part total time-322 hours.



AIRNOTES

ELECTRONIC VERSION OF MALFUNCTION OR DEFECT REPORT

One of the recent improvements to the Flight Standards Service Aviation Information Internet web site is the inclusion of FAA Form 8010-4, Malfunction or Defect Report. This web site is still under construction and further changes will be made; however, the site is now active, usable, and contains a great deal of information.

Various electronic versions of this form have been used in the past; however, this new electronic version is more user friendly and replaces all other versions. You can complete the form online and submit the information electronically. The form is used for all aircraft except certificated air carriers who are provided a different electronic form. The Internet address is:

<http://av-info.faa.gov/isdr/>

When the page opens, select “M or D Submission Form” and, when complete, use the “Add Service Difficulty Report” button at the top left to send the form. Many of you have inquired about this service. It is now available, and we encourage everyone to use this format when submitting aviation, service-related information.

SERVICE DIFFICULTY REPORTING PROGRAM

The objective of the Service Difficulty Reporting (SDR) Program is to achieve prompt and appropriate correction of conditions adversely affecting continued airworthiness of aeronautical products fleet wide. The SDR program is an exchange of information and a method of communication between the FAA and the aviation community concerning inservice problems.

A report should be filed whenever a system, component, or part of an aircraft, powerplant, propeller, or appliance fails to function in a normal or usual manner. In addition, if a system, component, or part of an aircraft, powerplant, propeller, or appliance has a flaw or imperfection which impairs, or which may impair its future function, it is considered defective and should be reported under the program.

These reports are known by a variety of names: Service Difficulty Reports (SDR), Malfunction or Defect Reports (M or D) and Maintenance Difficulty Reports (MDR).

The collection, collation, analysis of data, and the rapid dissemination of mechanical discrepancies, alerts, and trend information to the appropriate segments of the FAA and the aviation community provides an effective and economical method of ensuring future aviation safety.

The FAA analyzes SDR data for safety implications and reviews the data to identify possible trends that may not be apparent regionally or to individual operators. As a result of this review, the FAA may disseminate safety information to a particular section of the aviation community. The FAA also may adopt new regulations or issue airworthiness directives (AD's) to address a specific problem.

The primary source of SDR's are certificate holders operating under Parts 121, 125, 135, 145 of the Federal Aviation Regulations, and the general aviation community which voluntarily submit records. FAA Aviation Safety Inspectors may also report service difficulty information when they conduct routine aircraft and maintenance surveillance as well as accident and incident investigations.

The SDR data base contains records dating back to 1974. Reports may be submitted on the Internet through an active data entry form or on hard copy. The electronic data entry form is in the Flight Standards Aviation web site. The URL is: <<http://av-info.faa.gov>>.

A public search/query tool is also available on this same web site. This tool has provisions for printing reports or downloading data.

At the current time we are receiving approximately 45,000 records per year.

Point of contact is:

John Jackson
Service Difficulty Reporting System Program Manager
Aviation Data Systems Branch, AFS-620
P.O. Box 25082
Oklahoma City, OK 73125

Telephone: (405) 954-6486

E-Mail address: 9-AMC-SDR-ProgMgr@faa.gov

IF YOU WANT TO CONTACT US

We welcome your comments, suggestions, and questions. You may use any of the following means of communication to submit reports concerning aviation-related occurrences.

Editor: Isaac Williams (405) 954-6488

FAX: (405) 954-4570 or (405) 954-4655

Mailing address: FAA, ATTN: AFS-620 ALERTS, P.O. Box 25082,
Oklahoma City, OK 73125-5029

You can access current and back issues of this publication from the internet at:
<<http://av-info.faa.gov>>. Select the General Aviation Airworthiness Alerts heading.

AVIATION SERVICE DIFFICULTY REPORTS

The following are abbreviated reports submitted between August 22, 2003, and September 22, 2003, which have been entered into the FAA Service Difficulty Reporting (SDR) System data base. This is not an all inclusive listing of Service Difficulty Reports. For more information, contact the FAA, Regulatory Support Division, Aviation Data Systems Branch, AFS-620, located in Oklahoma City, Oklahoma. The mailing address is:

FAA
Aviation Data Systems Branch, AFS-620
PO Box 25082
Oklahoma City, OK 73125

These reports contain raw data that has not been edited. If you require further detail please contact AFS-620 at the address above.

FEDERAL AVIATION ADMINISTRATION

Service Difficulty Report Data

Sorted by Aircraft Make and Model then Engine Make and Model. This Report Derives from Unverified Information Submitted By the Aviation Community without FAA review for Accuracy.

ACFTMAKE ACFTMODEL REMARKS	ENG MAKE ENG MODEL	COMPMAKE COMPMODEL	PART NAME PART NUMBER	PART CONDITION PART LOCATION	DIFF-DATE OPER CTRL NO.	T TIME TSO
LYC		O360A1G	DIPSTICK LW14789	CHAFED OIL SYSTEM	08/18/2003 426	2600
OIL LEVEL INDICATOR (DIP STICK) ROD BECAME LOOSE IN HOUSING (THREADED CAP) THAT HOLDS ROD IN PLACE. THIS OCCURED WHERE ROD FITS INTO SCREW-IN PART OF DIP STICK CAP. THIS ALLOWED ROD TO MOVE IN AN ARC OVER 11 INCH IN TRAVEL OVER A RANGE OF 3660 DEGREES (AS MEASURED AT END OF ROD OPPOSITE SCREW-IN CAP) ALLOWING ROD TO RUB AND CHAFE WHERE ROD ENTERS ENGINE CRANKCASE. WHEN MEASURED ROD HAD CHAFED DOWN .030 INCH. MAIN CONCERN WOULD BE THAT ROD WOULD BREAK AT CHAFE POINT OR ROLL PIN WOULD WEAR AND ALLOW ROD TO FALL INTO ENGINE CASE. UPON CHECKING OIL FILTER AND OIL SUCTION SCREEN, NO LARGE AMOUNTS OF METAL WERE FOUND. DIP STICK LW-14789 WAS REPLACED ALONG WITH ENGINE OIL AND FILTER TO CORRECT THIS						
AEROSP SA315B			FITTING 1100211	BROKEN HORIZONTAL STAB	06/20/2003	448
RIGHT HAND AFT (T) FITTING BROKEN. THIS FITTING IS ONE OF FOUR THAT ATTACHES THE HORIZONTAL STABILIZER TO THE TAILBOOM. NO ABNORMAL VIBRATIONS. CAUSE UNKNOWN, NEW UNPROVEN MODIFICATIONS. AT 448 HOURS TT THIS STABILIZER HAS THE HIGHEST TTIME ON THIS STC. SUGGEST DAILY INSPECTION, CHANGE MATERIAL FROM ALUMINUM TO STEEL.						
AGUSTA A109A2			SKIN	CORRODED TAIL BOOM	12/10/2002	3485
EXTENSIVE CORROSION IN SEVERAL AREAS OF THE TAIL BOOM. CORROSION UNDER THE LT AND RIGHT SIDES OF THE HORIZONTAL STABILIZER THROUTH THE SHEET ALUMINUM. CORROSION UNDER THE AIRCRAFT, BELOW THE BAGGAGE AREA THROUGH THE SHEET ALUMINUM AND CORROSION ON THE ANGLED FITTING IN THE FORWARD VERTICAL STABILIZER. THE CORROSION WAS FOUND DURING AN ANNUAL INSPECTION OF THE AIRCRAFT.						
AGUSTA A109E		PWA PW206B	ATTACH FITTING 109063064103	LOOSE FUEL CONTROL	09/08/2003 150	796
ENGINE FUEL CONTROL LINKAGE ATTACHING NUT HAS BACKED OUT. THIS HAS ACCURED FIVE TIMES IN THE PAST, ON DIFFERENT AIRFRAMES OPERATED. THE RESULT OF THE NUT BACKING OFF THE FUEL CONTROL ACTUATING SHAFT CAUSED A LOSS OF MANUAL CONTROL VIA THE POWER LEVER IN COCKPIT. THE A109E POWER CONTROL SYSTEM IS ONE OF A REDUNDENT NATURE, SO NO LOSS OF POWER WAS EXPERIENCED IN FLIGHT. THESE AIRCRAFT ARE NOT OPERATED IN CIVILIAN CATAGORY, AND THIS DISCREPENCY IS OF AN ISOLATED NATURE, WHICH HAS BEEN CORRECTED USING UPDATED INSPECTION METHODS LOCALLY.						
AIRBUS A310			B-NUT 2244404523	CRACKED CASE DRAIN LINE	07/19/2003	
(CAN) DURING FLT, THE AIRCRAFT LOST THE B-HYDRAULIC FLUID SYSTEM. DURING INVESTIGATION THE B-NUT WAS FOUND CRACKED ON THE NR 1 ENGINE DRIVEN PUMP CASE DRAIN LINE. THE LINE ASSEMBLY WAS REPLACED, THE HYDRAULIC PUMP WAS REPLACED AS PRECAUTIONARY MEASURE AND THE GREEN HYDRAULIC SYSTEM FLUSHED.						
AMTR GLASAIRIII		LYC IO540*	ACTUATOR 3435640101	SEPARATED NLG	03/09/2003	1044
ACTUATOR PISTON SEPARATED AT THE ROD END BEARING THREADED AREA. MFG SB NR 109 DATED 1-1092 RECOMMENDED INSTALLATION OF A THREADED REINFORCEMENT BARREL (PN 523-5627-001) BE INSTALLED TO REPLACE TO ORIGINAL BEARING JAM NUT. THIS SB HAD BEENN INSTALLED AT THE TIME OF THIS INCIDENT.						
AMTR LANCASTER10		PCKARD	CONTROL 224	STRETCHED CONTROL COLUMN	06/15/2003	
(CAN) AIRCRAFT DEPARTED TAXIWAY AFTER PILOT EXPERIENCED PARTIAL BRAKE LOSS WHILE RETURNING TO THE RAMP AFTER LANDING. DISCOVERED A STRETCHED PILOT'S CONTROL CABLE TO BRAKE PROPORTIONING VALVE, WHICH IN TURN LOWERED THE AIR PRESSURE AVAILABBLE TO WHEELS.						
AVIAT A1A		LYC O360*	BRACE PN 81611	SHEARED HORIZONTAL STAB	06/15/2003	
PREFLT INSPECTION FOUND THE TERMINAL HOLDING THE LT FORWARD TAIL BRACE TO THE HORIZONTAL STABILIZER TO BE SHEARED OFF.						
AYRES S2RG10		GARRTT TPE331*	GEARBOX 310286529	FAILED PROPELLER	08/01/2003	5361
ENGINE LOW OIL PRESSURE LIGHT ILLUMINATED, FOLLOWED BY ENGINE FAILURE AND PROPELLER FEATHER. SUBSEQUENT EXAMINATION FOUND SIGNIFICANT QUANTITIES OF FERROUS METAL IN GEARBOX OIL SCREEN, LOW OIL QUANTITY AND FEROUS METAL IN ENGINE OIL TANK.						
BBAVIA 11AC			TORQUE TUBE	SEPARATED RUDDER PEDAL	07/31/2003	
DURING ACCIDENT INVESTIGATION, FOUND BRACKET ATTACHED TO RUDDER PEDAL TORQUE TUBE FOR ATTACHMENT OF LT RUDDER CABLE SEPARATED FROM TORQUE TUBE. BRACKET APPEARED TO HAVE SMALL CRACK AT REAR, APPROXIMATELY 1 INCH BELOW CABLE ATTACHMENT HOLE, AND DURING ACCIDENT, IT APPEARS THAT EXCESSIVE FORCE ON THE RUDDER PEDALS CAUSED THIS BRACKET TO TWIST AND SEPARATE. BECAUSE OF THIS FAILURE, PILOT WAS UNABLE TO RECOVER FROM GROUND LOOP.						
BBAVIA 7ECA		LYC O235*	SPAR 5262, 5263	CRACKED WING	05/27/2003	2086
CRACK UNDER PLYWOOD PLATE, BOTH CRACKS FLOW THE GRAIN.						
BBAVIA 7GCAA		LYC	FABRIC O320*	ROTTED BOTH WINGS	06/24/2003	
WING FABRIC WAS FOUND TO BE ROTTED ALONG THE EDGE OF THE STRAIGHT EDGED FIBREGLASS SURFACE TAPE ON A TWO YEAR OLD FACTORY COVERED WING. THE PAINT PPG SYSTEM DELTA, SHOWS CRACKS ALONG THE EDGES OF ALL SURFACE TAPES ON THE TOP OF BOTH WINGS IN THE PROP ARC. THE BAY THAT ACTUALLY FAILED SHOWED A BROWN STAIN ALONG ITS LENGTH. AIRCRAFT IS NORMALLY HANGARED.						

BBAVIA 8GCBC	LYC	BLANCA O360C2E	PEDAL 315371	CRACKED TOE BRAKE	07/15/2002
(CAN) A/C ARRIVED FOR SUMMER OPERATION. THE AME TOOK A QUICK LOOK THROUGH THE COCKPIT AND NOTICED THE RIGHT PEDAL SYSTEM LOOSE. ON FURTHER INSPECTION, HE NOTICED THE FORWARD RIGHT PEDAL BENT AND CRACKED ON THE RIGHT MOUNT SUPPORT.					
BBAVIA 8KCAB			BUSHING	LOOSE RUDDER	09/03/2003 838
RIGHT FORWARD RUDDER ATTACH BUSHING COTTER PIN HEAD WORN OFF BY CYCLIC CONTACT WITH FLOORBOARD. PIVOT BUSHING WAS FOUND MORE THAN HALF WAY OUT OF RUDDER ATTACH POINT.					
BBAVIA 8KCAB	LYC	SPAR AEIO360*	CRACKED 5356	LT WING	06/10/2003
(AUS) LT WING REAR SPAR CONTAINED A NUMBER OF LENGTH WISE CRACKS. FOUND DURING INSPECTION IAW					
BEECH 100BEECH	GARRTT	SWITCH	FAILED		06/05/2003
(CAN) FOLLOWING FLIGHT, THE ENGINE WAS UNABLE TO BE SHUT DOWN BY SELECTING ENGINE STOP BUTTON.					
BEECH 100BEECH	GARRTT	SHUTOFF VALVE	DAMAGED		07/25/2003
(CAN) THIS PART HAD PREVIOUSLY FAILED AND WAS SENT FOR REPAIR AND THEN RE-INSTALLED. THE COMPONENT FAILED FOR THE SAME FAULT AFTER ONLY 13.2 HRS OF OPERATION. THE UNIT WAS AGAIN REMOVED AND SENT FOR REPAIR AT THE SAME FACILITY UNDER WARRANTY.					
BEECH 100BEECH	PWA PT6A28	GEAR 99524122	STRIPPED FLAP GEARBOX		07/24/2003
(CAN) AFTER LANDING AND FLAPS RETRACTED CREW NOTICED THAT INBOARD FLAPS HAD RETRACTED FULLY BUT THE OUTBOARD FLAP HAD STUCK AT ABOUT THE APPROACH SETTING. FLAP GEARBOX/MOTOR ASSY REPLACED. INSPECTION OF FAILED GEARBOX REVEALED NUMEROUS STRIPPED TEETH ON ONE OF THE GEARS.					
BEECH 1900C	PWA PT6A65B	UPLOCK H111541	UNSERVICEABLE LANDING GEAR		07/23/2003
(AUS) RT MAIN LANDING GEAR UPLOCK SWITCH UNSERVICEABLE.					
BEECH 1900D		CONTROL 11452403725	BROKEN ELEVATOR TRIM		07/01/2003
DURING A GROUND OPERATIONAL CHECK, THE ELEVATOR TRIM CABLE BROKE. THE PART HAD 7208.0 FLIGHT HOURS AND COMPLIED WITH AD 2003-03-18 AND SAFETY COMMUNIQUE NR 216 ON 02/17/03.					
BEECH 1900D	PWA PT6A67D	SHAFT 1013800006	BROKEN LE SLAT CONTROL		08/21/2003
(CAN) DURING CLIMB, CREW SELECTED FLAPS '0' BUT NOTED THAT PANEL NR 4 DID NOT APPEAR TO RETRACT ALL THE WAY UP. FLIGHT CONTINUED TO DESTINATION AND FLAPS WERE CONFIRMED TO BE ALL UP EXCEPT NR 4 WHICH WAS HANGING DOWN BY APPROX 4 DEGREES. THE .5000 & .7500 PANEL PAIRS ARE PROTECTED BY A 3 TO 6 DEGREE SPLIT IN PAIR WHICH LOCKS SYSTEM, ONLY RESETTABLE ON GROUND. MAINT FOUND THAT FLEXIBLE DRIVE CABLE FOR NR 4 WAS BROKEN INSIDE OF EXTERNAL COVERING. A FACTORY INSTALLED CLAMP APPEARS TO HAVE BEEN OVERTIGHTENED WHICH CAUSED A LOSS OF COVERING INTEGRITY ALLOWING MOISTURE TO ENTER CABLE SHEATH. LOW PORTION COLLECTED MOISTURE AND EVENTUALLY CORRODED ENOUGH TO ALLOW TORQUE TO BREAK STRANDS. MFG HAS BEEN					
BEECH 95A55		COMBUSTION 51A45	DEFECTIVE HEATER		07/17/2003
HEATER CORE RETURNED TO US BY CUSTOMER AFTER PURCHASING AN EXCHANGE/OVERHAUL HEATER. TEAR-DOWN/CLEANING OF CORE REVEALED COMBUSTION HEAD WITH A 3/16 X 1/4 INCH HOLE IN THE WALL OF THE COMBUSTION HEAD. THIS IS THE THIRD HEAD WE HAVE FOUND WITH A HOLE IN IT. A PRESSURE DECAY CHECK OF THE HEATER ASSEMBLY WILL FIND THESE HOLES QUICKLY, IF PERFORMED. RECOMMEND PRESSURE CHECK OF ALL COMBUSTION AIRCRAFT HEATERS FOR CONTINUED SAFE HEATER OPERATION.					
BEECH 95A55	CONT IO470*	DRAIN BJ1000A13DO	FAILED VALVE BODY		03/28/2003
QUICK DRAIN FAILED, CAUSING TOTAL LOSS OF ENGINE OIL. AFTER SHUTDOWN OF ENGINE, BROKEN OFF PART WAS FOUND. AFTER REMOVING OIL PAN, ENGINE OIL WAS CHECKED AT TIME OF OIL LOSS AND HAD 4 QUARTS REMAINING, BUT WAS STILL DRAINING.					
BEECH 95B55	CONT IO470*	HEATER D83A28	CRACKED CABIN		08/15/2003
HEATER COMBUSTION TUBE CRACKED SEVERELY IN MULTIPLE LOCATIONS WHICH LIKELY INDICATES THAT CRACKS HAVE EXISTED FOR SOME TIME. BIG PROBLEM IS THAT THERE IS NO REQUIRED PRESSURE DECAY TEST FOR THESE HEATERS. PRESSURE DECAY TESTING SUCH AS REQUIRED FOR OTHER HEATER MODELS IAW AD 96-20-07 IS PROBABLY MOST EFFICIENT METHOD OF DETERMINING CONDITION OF COMBUSTION TUBE.					
BEECH 95B55	CONT IO470L	PITCH STOP 57A24041	STRIPPED PROP CYLINDER		08/16/2003
(CAN) DURING INSPECTION OF THE PROP, MAINTENANCE ATTEMPTED TO REMOVE THE SPINNER BUT COULDN'T BECAUSE THE LOW PITCH STOP THREADS WERE STRIPPED, WHERE THE SPINNER ATTACHES TO THE LOW PITCH STOP. THE LOW PITCH STOP HAD TO BE REMOVED FROM THE PP ROPELLER SO THE SPINNER COULD BE REMOVED. IT WAS ALSO NOTED THAT THE HOLE IN THE FRONT OF THE SPINNER FOR THE LOW PITCH STOP WAS ENLARGED ALLOWING THE SPINNER TO WOBBLE SLIGHTLY DURING OPERATION CAUSING THE SPINNER AND SPINNER BULKHEAD TO CRACK. THE PROPELLER, LOW PITCH STOP AND SPINNER AND BULKHEAD ASSEMBLY WERE REPLACED.					
BEECH 99	PWA	WIRE PT6A20	CHAFED LT NACELLE		07/30/2003
(CAN) SHORTLY AFTER TAKE OFF FROM FORT SMITH THE OIL PRESSURE INDICATION ON THE LH ENGINE DROPPED TO ZERO AND THE OIL PRESSURE LIGHT CAME ON. A PRECAUTIONARY SHUTDOWN WAS CARRIED OUT AND THE AIRCRAFT RETURNED TO FORT SMITH. ON INVESTIGATION IT WAS DISCOVERED THAT A WIRE BUNDLE WAS CHAFING ON THE NACELLE UPPER DOOR NEAR THE OIL PRESSURE TRANSMITTER. THE WIRES WERE CHAFED RIGHT THROUGH TO BARE WIRE AND THEY SHORTED TO THE DOOR. THIS CAUSED THE OIL PRESSURE INDICATION TO DROP OFF, AS IF THE ENGINE HAD LOST PRESSURE SUDDENLY.					
BEECH 99	PWA PT6A28	HOSE AE3660120G023	RUPTURED NLG		08/10/2003
(CAN) TIME ON HOSE UNKNOWN ALTHOUGH DATA PLATE ON IT INDICATES 13 YEARS OLD. LANDING GEAR WAS SELECTED UP AND ONLY 2 MAIN GREEN LIGHTS CAME ON. THERE WAS ALSO A STRONG SMELL OF HYD FLUID. PILOT SELECTED DOWN AND THE NOSE GEAR LIGHT DID NOT COME ON. PILOT THEN HAND PUMPED THE GEAR DOWN AND GOT 3 GREEN LIGHTS. AIRCRAFT RETURNED TO BASE AND MAINTENANCE REPLACED THE NOSE GEAR RETRACT LINE. GEAR SWINGS CHECKED SERVICEABLE.					
BEECH A200	PWA PT6A41	FLAP TRACK 1011200561	CORRODED ZONE 600		08/04/2003 13607
DURING A 14 DAY CORROSION INSPECTION THE RIGHT HAND INBOARD FLAP TRACK WAS FOUND TO HAVE DEEP EXFOLIATION FLAKING CORROSION ON THE INBOARD SIDE OF THE TRACK. THE FLAKING WAS SEVERE ENOUGH TO CAUSE SEVERAL LAYERS OF FLAKES TO BE PRESENT. THE PART WAS REMOVED AND A NEW FLAP TRACK WAS INSTALLED. THIS AIRCRAFT WAS REPAINTED IN 1999, AND HAS BEEN KEPT, FOR THE MOST PART, OUTSIDE DUE TO LACK					

Manufacturer	Model	Part Number	Condition	Date	Page
BEECH	CONT	ROD END	WORN	07/21/2003	236
B36TC	TSIO520*	1317651F	PROP CONTROL		
AIRCRAFT WAS IN FOR ITS FIRST ANNUAL INSPECTION SINCE NEW. FOUND FORWARD PROP CONTROL ROD END WORN BEYOND SERVICEABLE LIMITS. PART MAY HAVE A MFG DEFECT.					
BRAERO	RROYCE	GEARBOX	FAILED	07/24/2003	
HS7482A	DART5342	602070009	RIGHT		
(CAN) ON CLIMBOUT THE STARBOARD GEARBOX FAILED. ENGINE WAS SHUTDOWN AND AIRCRAFT RETURNED TO YNA. AIRCRAFT WAS CHECKED BY AN ENGINEER AND WAS CONFIRMED GEARBOX FAILURE. THE DRIVESHAFT GD2016 S/N DR6306/65 WAS REMOVED, ENGINE CHECKED. AIRCRAFT FERRIED BACK TO YXY BASE ON FERRY FLIGHT, FILE H5008-A61, WHERE GEARBOX P/N 602070009, S/N61095/66 WAS REMOVED. S/N DR61057/68 INSTALLED AND AIRCRAFT R ETURNED TO SERVICE.					
CASA	GARRTT	PLANETARY	DAMAGED	07/13/2003	
C212200	TPE33110	31011447	GEARBOX	217	
(AUS)ENGINE GEARBOX SUN GEAR DAMAGED WHICH IN TURN CAUSED DAMAGE TO THE PLANETARY GEARS. SUSPECT SUN GEAR INCORRECTLY HARDENED DURING MANUFACTURE. FOUND AS A RESULT OF SOAP SAMPLE TESTING.					
CESSNA	CONT	EXHAUST	ERODED	08/25/2003	
150M	O200A	654004	ENGINE		
(CAN) DURING THE BOROSCOPE INSPECTION OF THE ON-CONDITION PROGRAM SPECIAL EFFORT WAS MADE TO INSPECT THE EXHAUST VALVE AS WE HAD FOUND A PREVIOUS VALVE OF THE SAME PART NUMBER IN POOR CONDITION. THE NR 2 CYLINDER EXHAUST VALVE WAS FOUND SEVEERELY ERODED 1/3 TO 1/2 OF THE WAY ACROSS THE DIAMETER OF THE VALVE STEM WHERE THE STEM OF THE VALVE MEETS THE HEAD OF THE VALVE. THE PROBLEM APPEARS TO BE A METALLUR GICAL PROBLEM OR A DEFECT IN THE MANUFACTURE OF THE VALVE. THE VALVE WILL BE REPLACED NEW. ALL OTHER ASPECTS OF THE ENGINE WERE INSPECTED FOR A CAUSE OF THIS PROBLEM AND NONE WERE EVIDENT.					
CESSNA	LYC	BOLT	LOOSE	07/11/2003	10730
152	O235L2C	STD705	IDLER GEAR		
(CAN) ON OVERHAUL DISASSEMBLY OF THE ENGINE, WE NOTICED THAT THE TWO BOLTS HOLDING THE IDLER GEAR SHAFT UNSCREWED AND THE LOCK PLATES HALF WAY ON THE BOLTS. THIS PROVOKE THE WITHDRAWAL OF THE IDLER GEAR AND CAUSED AN ENGINE SHUTDOWN. THE MAANUFACTURER PERFORMED THE LAST OVERHAUL.					
CESSNA	LYC	CESSNA	BRACKET	CRACKED	07/18/2003
152	O235L2C	04310093	VERTICAL STAB	10991	
(CAN) DURING ROUTINE 200 HOUR INSPECTION THE FORWARD LT VERTICAL FIN ATTACHMENT BRACKET APPEARED TO BE CRACKED ALONG THE BASE EXTERNAL SURFACE WHERE IT MATES WITH THE VERTICAL TABS OF THE PART. DISASSEMBLY REVEALED THE CRACK EXTENDED FORWAARD AND AFT ALONG THIS DIMENSION. THE DEFECTIVE BRACKET WAS REPLACED AND AIRCRAFT RETURNED TO SERVICE.					
CESSNA	LYC	THROTTLE	WORN	05/06/2003	
172N		O320H2AD	CARBURETOR		
CARBURETOR WAS LEAKING FROM ACCELERATOR PUMP SHAFT SEAL. IN ADDITION TO PUMP SHAFT SEAL, UNIT WAS INSPECTED AND WAS ALSO NOTED THAT THROTTLE SHAFT AND BUSHINGS WERE WORN BEYOND LIMITS. INSTALLED THIS CARBURETOR BACK IN OUR CUSTOMERS PLAANE, TEST FLEW WITH NO PROBLEMS. JUST A COUPLE OF WEEKS LATER, CUSTOMER WAS MAKING APPROACH. HAD PULLED THROTTLE BACK TO IDLE A LITTLE EARLY AND DECIDED TO PUSH THROTTLE CABLE FROM THROTTLE ARM TO SEE IF PROBLEM COULD BE IN THE CABLE. IT WAS NOT, ARM ON CARBURETOR WOULD NOT MOVE. THROTTLE PLATE MAY HAVE COME LOOSE AND CAUSE A BINDING SITUATION. ONE SCREW ON PLATE WAS SLIGHTLY LOOSE, BUT EVEN WITH PLATE REMOVED THERE WAS BINDING. SENT CARBURETOR					
CESSNA	LYC	BOLT	IMPROPER PART	04/03/2003	2371
172S	I0360L2A	A251392	PROP		
THE PROPELLER MOUNTING BOLTS ON NEW AC MODEL SEEM TO BE TOO SHORT. THEY DO NOT EXTRUDE AT ALL THRU THE CRANKSHAFT PRESSED THREADED BUSHINGS. USUALLY THE THREADS WILL EXTRUDE 2-3 THREADS THRU THE BUSHING. RECOMMENDATION IS TO HAVE A LONGEER BOLT INSTALLED SO THE THREADS EXTRUDE ALL THE WAY THRU THE CRANKSHAFT BUSHINGS AT LEAST 3 THREADS.					
CESSNA	CONT	FITTING	CRACKED	08/07/2003	
180J	O470S	07120013	VERTICAL STAB		
(CAN) UPON REMOVAL OF VERTICAL STABILIZER THE REAR DORSAL FIN ATTACH BRACKET WAS FOUND TO BE CRACKED. THE LT RADIUS HAD FAILED BELOW THE FASTNER ATTACHMENT.					
CESSNA	CONT	DOWEL PIN	MISINSTALLED	07/01/2003	
182Q	O470U	PROP FLANGE	1200		
(AUS) CRANKSHAFT PROPELLER MOUNTING FLANGE PROPELLER LOCATING DOWELS INCORRECTLY FITTED. DOWELS HAVE A SLIGHT TAPER WHICH ALLOWS FOR A SLIP FIT INTO THE CRANKSHAFT AND AN INTERFERENCE FIT ONTO THE PROPELLER. THE DOWELS WERE INCORRECTLY FITTED WITH THE INTERFERENCE FIT ONTO THE CRANKSHAFT. THE INCORRECT FITMENT OF THE DOWELS DAMAGED THE CRANKSHAFT. PERSONNEL/MAINTENANCE ERROR.					
CESSNA	CONT	SADDLE	CRACKED	05/30/2003	
210J	I0520J	12941511	LT MLG		
(AUS) LT MAIN LANDING GEAR SADDLE CRACKED AND LEAKING HYDRAULIC BRAKE FLUID. FURTHER INSPECTION FOUND RH MAIN LANDING GEAR SADDLE ALSO CRACKED.					
CESSNA		ACTUATOR	FAILED	07/01/2003	2242
210L		12805042	MLG		
SHORTLY AFTER TAKEOFF AND PRIOR TO PERFORMING TOUCH AND GO'S, IT WAS NOTED THAT LANDING GEARS WERE NOT SAFELY DOWN AND LOCKED. MLG'S WERE VISUALLY NOT EXTENDING PASSED FREE HANGING POSITION. SEVERAL PROCEDURES AND ATTEMPTS WERE MADE OVER THHE FOLLOWING THREE FLIGHT HOURS WITH NO SUCCESS. AIRCRAFT LANDED GEAR UP ON RUNWAY WITH NO FIRE, INJURIES AND SUSTAINING ONLY MINOR DAMAGES. UPON INSPECTION, IT WAS FOUND THAT MLG UPLOCK ACTUATOR PN 1280504-2 FAILED. WHEN SELECTING EXTEND POSITION, IT WOULD UNLOCK THE MLG'S BUT RESTRICT PRESSURE TO FLOW THROUGH IT TO EXTEND THE MLG ACTUATORS. AIRCRAFT WAS JUST OUT OF ANNUAL INSPECTION WHERE THE RETRACTION SYSTEM AND EMERGENCY EXTENSION SYSTEM WAS INSPECTED FREE OF DEFECTS.					
CESSNA	CONT	NUT	LOOSE	07/30/2003	
210L	I0520L	AN92440	HYD SYSTEM		
(AUS) SHUTTLE VALVE ELBOW FITTING JAM NUT VIBRATED LOOSE. LOSS OF FLUID.					
CESSNA	CONT	SPAR	CRACKED	07/16/2003	
210N	I0520L	123260029	HORIZONTAL STAB		
(AUS) HORIZONTAL STABILISER FRONT SPAR CENTRE LAMINATE CRACKED. FOUND DURING INSPECTION IAW AD/C210/69.					
CESSNA	CONT	SUPPORT	BROKEN	08/08/2003	6431
310J	I0470U	0811303-1	FUSELAGE		
RH LANDING GEAR COLLAPSED ON LANDING. FOUND THAT THE UPPER BELL CRANK BRACKETT P/N 0811303-1 WHICH SUPPORTS AND GUIDES THE RT MAIN LANDING GEAR PUSH/PULL TUBES FROM GEAR BOX TO GEAR ASSEMBLY SEPERATED FROM BULKHEAD DUE TO MOUNTING RIVET FAILLURE. THIS SEPERATION WOULD NOT ALLOW THE RT GEAR ASSEMBLY TO STAY IN A (DOWN AND LOCKED) POSITION.					

CESSNA 340A	CONT TSIO520NB	SPARK PLUG URHB32E	SEPARATED ENGINE	09/12/2003	151
PILOT REPORTED ENGINE ROUGHNESS ON APPROACH AND LOSS OF RIGHT ENGINE NR 3 CYLINDER EGT INDICATION. AIRCRAFT LANDED WITH OUT INCIDENT. INSPECTION REVEALED NR 3 CYLINDER LOWER SPARK PLUG HAD SEPERATED INTO TWO PIECES BETWEEN THE GASKET SURFACCE AND THE WRENCH HEX ALLOWING THE CENTER ELECTRODE TO BE EJECTED FROM THE SPARK PLUG. THE COWLING SUFFERED MINOR FLAME DAMAGE.					
CESSNA 401	CONT TSIO520E	CLAMP NH100089740	BROKEN EXHAUST PIPE	08/19/2003	
(CAN) DURING A NR 4 INSPECTION, THE V-BAND CLAMP ATTACHING THE EXHAUST TAIL PIPE TO THE TURBOCHARGER, WAS FOUND BROKEN. THE CLAMP WAS BROKEN IN HALF. THE ONLY THING HOLDING THE TAIL PIPE ON WAS A SUPPORTING HOSE TYPE CLAMP MOUNTED HALF WAY DOWN THE PIPE. THE BROKEN CLAMP WAS REPLACED.					
CESSNA 402C	CONT TSIO520VB	FITTING 08113509	MISREPAIRED WING ATTACH	07/28/2003	
(AUS) LT FORWARD UPPER INBOARD WING ATTACHMENT FITTING HAD THREE BOLTS MISSING. INVESTIGATION FOUND THAT THE FITTING DOES NOT LINE UP WITH THE BOLT HOLES DUE TO MISALIGNMENT. FURTHER INVESTIGATION FOUND THAT THE HOLES AND THE ATTACHING CHANNNELS HAVE BEEN DRILLED OUT BY APPROXIMATELY 0.381MM (0.015IN) TO TRY TO MAKE THE BOLTS FIT. LOOSE BOLTS ALSO FOUND ON RT ATTACHMENT FITTING. PERSONNEL/MAINTENANCE					
CESSNA 525		ACCESS PANEL 9914218	LEAKING WING TANK	03/17/2003	2509
FUEL BAY ACCESS PANELS CAUSE A FUEL LEAK WHEN INSTALLED AS SPARES REPLACEMENT. AT ALL FASTENER HOLES ON EACH DOUBLER THERE IS PROTRUSION CAUSED BY THE OLD PANELS DESIGNED WITH A MILLED AREA ON BACK SIDE OF COUNTER SUNK FASTENER HOLES. WHEN ORIGINAL PANEL SCREWS ARE TIGHTENED IN ANCHOR NUTS HAVE PULLED DOUBLER MATERIAL INTO THE MILLED AREA OF ACCESS PANELS LEAVING DIMPLE LIKE PROTRUSION UP TO DEPTH OF THE MILLED AREA. BUT WHEN YOU HAVE TO INSTALL NEW ACCESS PANELS NOT HAVING A MILLED AREA BECAUSE THE OLDER ONES ARE NO LONGER AVAILABLE YOU END UP WITH A FUEL LEAK DUE TO THE PROTRUSION HOLDING THE NEW FLAT PANELS AWAY FROM THE FLAT SURFACE OF THE DOUBLER.					
CESSNA 525	WILINT FJ44	TIRE 184F681	LEAKING MLG	08/04/2003	293
SUSPECTED SUDDEN AIR LOSS BETWEEN PRE-FLIGHT INSPECTION AT HOME FBO AND LANDING AT VISITING FBO. APPROX. 1-25 HOURS.					
CESSNA 525	WILINT FJ44	ENGINE FJ44	FLAMED OUT RIGHT	07/14/2003	
DURING AN APPROACH TO LAND AT 5000 FT AGL, THE THROTTLES WERE RETARDED TO IDLE AND THE NR 2 ENGINE FLAMED OUT. A SINGLE ENGINE LANDING WAS PERFORMED WITHOUT INCIDENT. THE AIRCRAFT HAD RECENTLY BEEN THROUGH AN ENGINE CHANGE AFTER AN OVERHAUL. AFTER THE WORK WAS PERFORMED, IT WAS NOTICED THAT THE RIGHT THROTTLE WAS CREW AND PASSENGERS WERE DISEMBARKED FROM THE AIRCRAFT. THE PILOT AND CO-PILOT CONSULTED WITH GROUND MAINTENANCE. A VISUAL INSPECTION OF THE ENGINE AND ENGINE RUN REVEALED NO DISCREPANCIES. THE AIRCRAFT ENGINE CONTROLS WERE RE-RIGGED AND THE ENGINE WAS TEST RUN ONCE AGAIN TO VERIFY PROPER RIGGING. (SW15200317283)					
CESSNA 550	PWA JT15D4	CONTROLLER 13035616	MISWIRED CABIN PRESSURE	06/16/2003	
PX CONTROLLER REPLACED DUE TO INTERNAL FAILURE AFTER REPLACEMENT PILOT COMPLAINED ABOUT A 6000+ FOOT PER MINUTE CABIN CLIMB RATE AND THAT THE CONTROLLER BACK LIGHTING CAME ON WHEN THROTTLES WERE REDUCED BELOW 90 PERCENT. INSPECTION OF THE SYSTEM REVEALED THAT THE REPLACEMENT CONTROLLER WAS MISS-WIRED AT OVERHAUL. REPLACED THE CONTROLLER NO FURTHER PROBLEMS REPORTED. (SW05200308828)					
CESSNA 550	PWA JT15D4	WIRE JT15D4	CHAFED CONTROL WHEEL	08/18/2003	
(CAN) DURING REASSEMBLY CONTROL WHEEL, A TECHNICIAN DISCOVERED TWO BARE WIRES HIDDEN INSIDE THE CONTROL WHEEL ASSY. THE BARE WIRES COULD BE PARTIALLY SEEN FROM A SMALL OPENING IN THE FRONT SIDE OF THE CONTROL WHEEL PAD. AFTER DISMOUNTING THEE CONTROL WHEEL ASSEMBLY AND REMOVING ITS ASSOCIATED PARTS (WHEEL FRONT AND AFT COVER, BEARING AND SHAFT), IT BECAME POSSIBLE TO PERFORM A CLOSER INSPECTION OF THE WIRES. THE WIRES ARE BUNDLED UP AND ROUTED INSIDE A SMALL SHAFT USED FOR HOLDING THE CONTROL WHEEL TOGETHER. TWO SCREWS ATTACHED THE SHAFT TO THE CO NTROL WHEEL. FURTHER INVESTIGATION OF THE ASSEMBLY REVEALED THAT THE WIRES WERE FORCIBLY DAMAGED BY THE TWO SCREWS DURING PERIODIC					
CESSNA 560		WIRE	WORN RT TE FLAP	05/19/2003	
NAV LIGHT CIRCUIT BREAKER POPPED. TROUBLESHOT, FOUND WIRES IN RIGHT FLAP AREA HAD WORN THROUGH PROTECTIVE SLEEVE AND WIRE INSULATION. FOUND BARE SPOTS ON OTHER WIRES IN SAME AREA. RECOMMEND THAT THESE AREA BE INSPECTED CLOSELY FOR INSULAAATION SLEEVE BEING WORN THROUGH.					
CESSNA 560	PWA PW535A	LINE 651710917	CHAFED BRAKE SYSTEM	06/09/2003	
(CAN) LT AND RT BRAKE HYD LINES WERE FOUND TO BE CHAFING ON ELEVATOR CONTROL CABLES AT F.S.178.00. THIS DISCREPANCY IS BELIEVED TO HAVE OCCURRED AT MANUFACTURE. AS THIS WAS THE FIRST TIME THE FLOOR PANEL HAD BEEN REMOVED. THIS AREA IS A PLLACE WHERE THE HYDRAULIC BRAKE LINES RUN LATERALLY ACROSS THE FLIGHT CONTROL CABLES. THE PROBLEM WAS RECTIFIED BY REPLACING BOTH LINES ASSEMBLIES AND REPOSITIONING TWO ADJACENT ADEL CLAMPS AS TO PROVIDE MAXIMUM CLEARANCE. THE GENERAL AREA IS 1.0 FT FORWARD OF CABIN DOOR UNDER CENTER FLOORBOARD. LT BRAKE HYD LINE P/N 6517109-17 RT BRAKE HYDRAULIC LINE P/N 6517109-18.					
CESSNA 650		CONTROL 626010625	BROKEN RT AILERON	09/08/2003 59	4708
RT AILERON OUTBOARD FORWARD CABLE WAS FOUND BROKEN AT OUTBOARD PULLEY LOCATION. PILOT NOTICED AIRCRAFT ROLLING TO RIGHT. LOOKED OUT WINDOW AND FOUND RT AILERON DEFLECTED UP APPROXIMATELY 2 INCHES FROM NEUTRAL POSITION. AIRCRAFT LANDED WITHOOUT INCIDENT. UPON VISUAL INSPECTION ON GROUND BY MECHANIC, FOUND RT AILERON CABLE BROKEN. INSPECTED PULLEYS AND SURROUNDING STRUCTURE AND FOUND SATISFACTORY. CABLE WAS REPLACED WITH A NEW CABLE AND RIGGED IAW MAINTENANCE MANUAL.					
CESSNA A150K	CONT O200A	SPAR 043200156	CRACKED HORIZONTAL STAB	06/19/2003	
(AUS) STABILIZER SPAR CRACKED IN AREA AROUND ATTACHMENT BRACKET NUT PLATE. CRACK LENGTH 12.7MM (0.5IN).					
CESSNA A150K	CONT O200A	BRACKET 04320041	CRACKED HORIZONTAL STAB	08/15/2003	
(AUS) HORIZONTAL STABILISER BRACKET CRACKED AROUND NUT PLATES.					

CESSNA A185F	CONT IO520*	CONTROL 05117821	CRACKED COCKPIT	12/29/2001	2126
A CRACK WAS FOUND ON THE AFT SIDE, ASCENDING UP FROM THE BASE OF THE CONTROL COLUMN (CONTROL U ASSY). THE CRACK MEASURED APPROXIMATELY 6 INCHES AND HAD SPREAD APART APPROXIMATELY .5000 INCH JUST ABOVE THE ELEVATOR PUSH-PULL TUBE BEARING AND EXTENDED UP THROUGH THE PIVOT BEARING. SIGNIFICANT AMOUNTS OF RUST WERE NOTED INSIDE THE COLUMN AT THE BASE OF THE CRACK. IT SHOULD BE NOTED THE AIRCRAFT IS INSTALLED ON AMPHIBIAN FLOATS. POSSIBLE CAUSE OF CRACK COULD BE CONTRIBUTED TO WATER COLLECTING IN THE BOTTOM OF THE COLUMN AND FREEZING.					
CESSNA A185F	CONT IO520D	LINE FUEL SYS	PLUGGED	07/22/2003	
(CAN) AIRCRAFT IS EQUIPPED WITH AN AFTERMARKET 6 CYLINDER EXHAUST GAS TEMPERATURE ENGINE MONITOR. DURING BREAK-IN PERIOD FOR FACTORY REMANUFACTURED ENGINE, NR 4 CYLINDER EGT RAN 200 DEGREES F HIGHER THAN THE OTHER FIVE CYLINDERS. TROUBLESHOOTING EVENTUALLY FOUND A PLUGGED INJECTOR LINE TO NR 4 CYLINDER. PLUG WAS AN UNKNOWN WHITE POWDERY MATERIAL. PLUG WAS REMOVED, LINE CALIBRATED, ENGINE RETURNED TO SERVICE. NR 4 CYLINDER EGT NORMAL. CESSNA ENGINE GAUGES READ NORMAL BEFORE AND AFTER PROBLEM AND DID NOT INDICATE A PLUGGED FUEL LINE.					
CESSNA A185F	CONT IO520D	CESSNA PUSHROD TUBE	STUCK ELEVATORS	07/17/2003	
(CAN) ELEVATOR CONTROL JAMMED ON PREFLIGHT FUNCTION TEST. COMPLETE SYSTEM INSPECTED FOR FAULT. FINDINGS: LOOSE NUT (FOD) NR NAS 697A6 FOUND STUCK ON TOP OF ELEVATOR PUSH ROD NR 0510111-10 AT BELLCRANK ASSEMBLY NR 0761202-50 ATTACHMENT. RESTRAINING ELEVATOR MOVEMENT TO THE LOWER STOP. THAT NUT WAS PROBABLY LOST ON TOP OF LOWER ELEVATOR CONTROL STOP - ELEVATOR LOWER NR 0510146-9 AND WAS LEFT THERE UNTAKEN CARE OF AND UNDETECTED FOR YEARS THERE AFTER. THIS NUT IS OFF VERTICAL FIN FORWARD INSTALLATION BOLTS NR AN6-7A. LAST SUSPECTED REMOVAL AND REASSEMBLY OF VERTICAL FIN (WITH NEW NUTS) MAY 1990. AIRCRAFT MAINT TECH SHOULD 'NEVER' LEAVE 'LOST' AND 'UNFOUND' HARDWARE IN AN AIRFRAME. JUST					
CESSNA A188B	CONT IO550D	SPRING 16001041	BROKEN CONTROL	06/05/2003	
(CAN) THE SPRING (P/N 1600104-1) THAT RETRACTS THE CONTROL LOCK (P/N 1613195-1) IN FLIGHT FAILED AND ALLOWED THE CONTROL LOCK ASSEMBLY TO EXTEND AND SUBSEQUENTLY PARTIALLY JAM THE CONTROL STICK. THE PILOT WAS ABLE TO DISENGAGE THE LOCK ASSEMBLY WHICH HAD JAMMED THE CONTROL STICK AND RETURNED TO BASE WITHOUT FURTHER INCIDENT.					
CIRRUS SR20	CONT IO360*	BOLT 6524201048	SHEARED NR 2 & 3 CYL	07/07/2003	1009
WHILE PERFORMING A COMPRESSION CHECK ON THE CYLINDER FOR THE 100 HOUR INSPECTION, HAPPENED TO LOOK AT THE CYLINDER BOLTS AND NOTICED ONE OF THE NUTS WAS MISSING ON THE TOP FORWARD THRU BOLT ON THE NR 2 CYLINDER. LOOKED AROUND ON THE BAFFLING AND FOUND THE OTHER PIECE OF THE BOLT WITH THE NUT STILL ATTACHED. WENT OVER TO THE NR 3 CYLINDER TO LOOK AND FOUND THAT THE NUT WAS MISSING ON THE THRU BOLT AFTER LOOKING AROUND THE AREA, FOUND THE NUT ON THE CYLINDER BAFFLE. AFTER LOOKING AT THE NUT AND THE THRU BOLT, IT APPEARS THAT THE THRU BOLT WAS OVERTORQUED AT THE FACTORY. HAD TO REPLACE BOTH UPPER AND LOWER THRU BOLTS.					
CIRRUS SR20	CONT IO360*	PIN MS16562224	SHEARED CREW DOOR	08/01/2003	116
COPILOTS DOOR WOULD NOT OPEN FROM INSIDE. OUTSIDE HANDLE WORKED OK. UPON DISASSEMBLY, THE PIN (CROSS PIN) FOR THE PILOTS WAS FOUND SHEARED. SAFETY HAZARDOUS EVIDENT. REPLACED PIN FROM PN MS16562-224. NO FURTHER MALFUNCTIONS AT THIS TIME..					
DIAMON DA20A1	ROTAX ROTAX912S3	EXHAUST PIPE 2500324	CRACKED ENGINE	07/21/2003	
(CAN) NOTED SLIGHT DISCOLORATION OF COWL ON ROUTINE DAILY INSPECTION. REMOVED UPPER COWL FOUND LOWER COWLING WITH SLIGHT BURN AREA AROUND NR 1 CYLINDER REMOVED EXHAUST WRAP TO FIND NR 1 EXHAUST PIPE CRACKED AND BLOWN OUT. THIS IS THE 4TH TIME ON DIFFERENT AIRCRAFT, SAME TYPE OF ENGINE WE HAVE FOUND THIS PROBLEM OVER THE PAST 3 MONTHS.					
DIAMON DA20A1	ROTAX ROTAX912S3	EXHAUST PIPE 2500324	CRACKED ENGINE	07/07/2003	
(CAN) DURING ENGINE ROUTINE INSPECTION, WE NOTICED SOME DISCOLORATION ON THE EXHAUST WRAP WHEN COWLS WAS REMOVED (SB 2078 04A). WHEN EXHAUST WRAP WAS REMOVED, IT REVEALED AN INSIDE BEND OF THE NR 1 CYLINDER AND FOUND THAT THE EXHAUST PIPE HAD BLOWN OUT. THIS WAS NOT OUR FIRST FINDING OVER THE PAST 3 MONTHS. WE HAVE HAD 3 OTHER AIRCRAFT WITH THE SAME IDENTICAL PROBLEM ON THE S3 ENGINES AT THE NR 1 CYLINDER ONLY. WE FEEL THIS PRESENTS A REAL CONCERN TO SAFETY.					
DIAMON DA20C1		SUPPORT 2055450300	CRACKED RUDDER HINGE	07/03/2003	180
LOWER RUDDER HINGE/SUPPORT BRACKET CRACKED AT THE LOWER WELD.					
DIAMON DA20C1	CONT IO240B	EXHAUST PIPE DC00015B	CRACKED ENGINE	07/11/2003	233
EXHAUST STACK FLANGE CRACKED.					
DIAMON DA20C1	CONT IO240B	THROTTLE A155055	BROKEN ENGINE	08/13/2003	320
THROTTLE CABLE BROKE IN FLIGHT AT FULL POWER.					
DOUG 600N		TORQUE TUBE 500N39507	CRACKED VERTICAL STAB	07/17/2003 239	489
PILOT NOTED DURING PREFLIGHT INSP ON RAMP, THAT THE UPPER LT VERTICAL STAB WAS BENT IN APPROX 3 INCHES AT THE TOP. VIDEO FOOTAGE OF THE FBO WAS REVIEWED AND IT WAS SEEN THAT THE AIRCRAFT LANDED IN THIS DAMAGE (WAS NOT CAUSED BY PERSONS OR EQUIPMENT ON THE GROUND). THE VERTICAL STAB WAS REMOVED AND A CRACK RUNNING THROUGH ONE OF THE CONTROL SURFACE ATTACH HOLES AND 330 DEGREES AROUND THE TUBE. THE RT SIDE WAS INSPECTED IAW MD SB600N-30R1, NO DEFECTS FOUND. CRACKED PART AND EXPANDABLE BOLTS BEING SENT TO MFG FOR EVALUATION. NEW TORQUE TUBE AND ATTACHING HARDWARE BEING INSTALLED. POSSIBLE FIX WOULD BE INTERNAL TUBE ACTING AS A SECOND LOAD PATH.					
DOUG 600N	ALLSN 250C47M	BULKHEAD 500N34215	CRACKED FUSELAGE	05/02/2003	
(AUS) FUSELAGE BULKHEAD CRACKED AT TOP RH TAIL BOOM FITTING BRACKET. FOUND DURING INSPECTION IAW AD/HU389/108.					
DOUG B26C	PWA	EXHAUST R280079	FAILED NR 3 CYLINDER	08/18/2003	
(CAN) ON APPROACH TO WHITE SMOKE WAS OBSERVED EXITING THE LT I/B EXHAUST STACK. THE ENGINE WAS SHUT DOWN AND SECURED. THE A/C LANDED WITHOUT INCIDENT. UPON INVESTIGATION THE NR 3 CYL. EXHAUST VALVE STEM HAD SEVERED AND WAS INGESTED INTO THEE CYL. OIL SCREENS WERE CHECKED AND CYL. CHANGED A/C RETURNED TO SERVICE.					
GIPPLD GA8	LYC IO540K1A5	BOLT AN37	SHEARED HORIZONTAL STAB	08/07/2003	
(AUS) HORIZONTAL STABILISER RT REAR PIVOT ATTACHMENT BOLT SHEARED.					

GROB G115C	LYC O320D1A	SPRING RZ1241	BROKEN AILERONS	08/08/2003	
(CAN) WHILE TOWING THE AIRCRAFT TO ITS PARKING SPOT, A BANG WAS HEARD. THE AILERONS DEFLECTED FULL SCALE LT. THE AILERON AND RUDDER WERE NO LONGER INTERCONNECTED. ONE OF THE SPRINGS WAS FOUND TO HAVE BROKEN OFF AT THE ATTACHMENT POINT. WHILE REPLACING THE SPRING THE OTHER SPRING WAS FOUND TO BE SUBSTANTIALLY WEAKER THAN THE NEW SPRING. BOTH SPRINGS WERE REPLACED IN ACCORDANCE WITH THE MANUFACTURER 'S DIRECTIVES.					
GROB G115C	LYC O320D1A	WIRE HARNESS INSTRUMENT	FAILED	07/28/2003	
(CAN) A WIRE BUNDLE BEHIND THE RT INSTRUMENT PANEL HAD CHAFED ON A SCREW SECURING A FACTORY INSTALLED BLANKING PLATE. THE NUT APPEARS TO HAVE BECOME LODGED IN THE CASING SECURING THE WIRE BUNDLE ALLOWING THE SCREW TO CHAFE THROUGH THE INSULATION ON TWO WIRES. THE SCREW WAS OBSERVED TO FLASH WHITE AND THE INSTRUMENT PANEL SHOWS SIGNS OF HEAT DAMAGE AROUND THE SCREW HOLE.					
GROB G120A	LYC	PROBE AEIO540D4A5	FAILED EXHAUSTEGT	06/13/2003	941
ON GROUND RUN-UP EGT INDICATOR FLUCTUATED 25 DEGREES. ON FURTHER INVESTIGATION FOUND CARBON ON END OF PROBE.					
GROB G120A	LYC	SHAFT AEIO540D4D5	SHEARED DRY AIR PUMP	06/04/2003	
DURING FLIGHT, THE INSTRUMENT VACUUM SYSTEM FAILED. THE AIRCRAFT RETURNED TO MAINTENANCE AND AN INSPECTION OF THE SYSTEM REVEALED THAT THE ROTOR SHAFT HAD SHEARED. PROBABLE CAUSE MAY BE THE ENGINE MOUNTS USED ARE TOO SOFT AND ALLOW THE ENGINE TO VIBRATE TOO MUCH AND THIS CAUSES THE PUMP SHAFT TO SHEAR. RECOMMEND ALTERNATIVE DRY AIR PUMP OR ALTERNATIVE ENGINE LOAD MOUNTS.					
GROB G120A	LYC	ACTUATOR G1204105	FAILED AILERON TRIM	05/13/2003	459
DURING FLIGHT, TRIM WOULD NOT STOP AND CONTINUED TO MOVE TO THE LEFT. PROBABLE CAUSE IS INTERNAL COMPONENT FAILURE IN THE AILERON TRIM ACTUATOR UNIT.					
GROB G120A	LYC	BEARING LN90898E4	FAILED RUDDER HINGE	08/14/2003	1073
DURING PRE-FLIGHT INSPECTION, FLIGHT CREW REPORTED A NOISE FROM THE RUDDER. INSPECTION OF THE RUDDER SYSTEM REVEALED A FAILED BEARING IN THE BEARING SUPPORT OF THE LOWER RUDDER HINGE. THE OUTER CASE OF THE BEARING HAD TWO PIECES BROKEN OFF AND MISSING. BEARING WAS RETURNED TO MANUFACTURER FOR INVESTIGATION. RECOMMEND REPLACEMENT OF BEARINGS WITH BETTER QUALITY BEARINGS.					
GRUMAN G64	GARRTT TPE3312201A	ALIDSG 31030351	BEARING TORQUE SENSOR	06/13/2003	687
ENGINE SHUT DOWN IN FLIGHT. AIRCRAFT LANDED IN A FIELD SUFFERED SUBSTANTIAL DAMAGE. AN ENGINE TEARDOWN WAS CONDUCTED. THE TORQUE SENSOR GEAR BEARING HAD FAILED, THE BEARING HAD COME APART BITS AND PIECES OF THE CAGE AND BALLS WERE FOUND IN THE BOTTOM OF THE GEAR BOX. VERY LITTLE EVIDENCE OF HEAT, OUTER RACES WERE STILL SHINY.					
GRUMAN TS2ACALFORST	WRIGHT	ENGINE 982C9HE2	FAILED NR 2	08/25/2003	
(CAN) DURING CLIMB THE PILOT NOTED NR 2 ENGINE WAS BACK FIRING AND SMOKE WAS VISIBLE. THE ENGINE WAS SHUT DOWN AND THE PROPELLER WAS FEATHERED. THE AIRCRAFT RETURNED TO YWL. UPON INVESTIGATION THE MAINTENANCE CREW NOTED THAT THE MAIN OIL SCREEN WAS CONTAMINATED WITH ALUMINUM AND STEEL. THE ENGINE IS BEING REPLACED WITH A SERVICEABLE UNIT. THE PROPELLER AND DOME WILL BE DRAINED AND FLUSHED PRIOR TO BEING REINSTALLED. THE ENGINE WILL BE GROUND RUN AND EAK CHECKED PRIOR TO THE AIRCRAFT BEING RELEASED TO SERVICE.					
GULSTM 112A	LYC IO360C1D6	HINGE 422783	CORRODED TE FLAP	07/12/2003	
(AUS) LT INBOARD TRAILING EDGE FLAP HINGE BRACKET RIVETS CORRODED AND FAILED. BRACKET WAS HELD ON BY ONLY ONE OF NINE RIVETS WHICH ALSO FAILED WITH LITTLE EFFORT.					
GULSTM GIV		WIRE HARNESS 1159SCAV3856	DAMAGED MLG	07/28/2003	114
IN TRYING TO FIT BUSHING, P/N 1159LM20156, TO INSTALL MAIN GEAR JACK ADAPTER, IT WAS FOUND THAT THE PORTION OF THE 1159SCAV385-6 WIRE HARNESS FOR THE NR 4 WHEEL SPEED SENSOR IN TRAILING LINK OF RIGHT HAND LANDING GEAR WAS DAMAGED SUCH THAT BOTH CONDUCTORS ONLY HAD A FEW STRANDS OF WIRE EACH ALLOWING CIRCUIT TO BE COMPLETE. SUSPECT THAT DAMAGE WAS CAUSED PREVIOUSLY AT SERVICE CENTER. HARNESS WAS REPLACED WITH NEW COMPONENT.					
LET L23		SEAT A780596L	MISMANUFACTURE OPTIONAL WEIGHT	07/16/2003	100
THE WEIGHTED SEATS HAVE A HANDLE WELDED ON THE LEFT REAR CORNER. WITH THE SEAT BELT FASTENED IT IS POSSIBLE TO LIMIT FULL LEFT RUDDER TRAVEL DUE TO THE RUDDER PEDAL JAMMING THE SEAT BELT ATTACH TAB BETWEEN THE PEDAL AND THE HANDLE. IT ONLY HAPPENS WITH THE OPTIONAL WEIGHTED SEAT IN THE FRONT MAULE					
DISC MX7235	FAILED	07/08/2003			
		16413601	MLG WHEEL		
(CAN) BRAKE DISC BROKE AWAY AT ALL THREE MOUNTING HOLES CAUSING RT BRAKE TO FAIL IN THE TAXI MODE. AIRCRAFT VEERED OFF TAXIWAY AND STOPPED ON GRASS. NO OTHER DAMAGE TO AIRCRAFT. WHEEL BOLTS APPEARED TO HAVE BEEN SLIGHTLY LOOSE, SOME CHAFING EVIDENT. WHEEL INSPECTED, NEW DISC AND BOLTS INSTALLED.					
MOONEY M20C	LYC O360A1A	FORK B24573	CRACKED PITCH CHANGE	05/05/2003	12000
PITCH CHANGE FORK WAS CRACKED, POSSIBLY DUE TO EXCESSIVE ENGINE VIBRATION. PROPELLER HAD 200 HOURS SINCE LAST OVERHAUL. CUSTOMER WAS ADVISED TO HAVE PROPELLER, DYNAMICALLY BALANCED TO AVOID ANY FURTHER DAMAGE TO PROPELLER ASSEMBLY.					
PILATS PC1245		STATIC LINE	SEPARATED	08/19/2003	
AT CRUISE ALTITUDE, STATIC SYSTEM LINE UNDER CABIN FLOOR BETWEEN FRAMES 32 AND 33 SEPARATED, INTRODUCING PRESSURIZED CABIN AIR INTO THE STATIC SYSTEM, DAMAGING PILOT AIRSPEED INDICATOR AND PILOT VERTICAL SPEED INDICATOR. THE STATIC LINE INVOLVED PULLED OUT OF A TEE FITTING IN THE SYSTEM. SUSPECTED CAUSE IS THAT THE STATIC SYSTEM LINES ARE BEING CUT TOO SHORT AT THE AIRCRAFT FACTORY, CAUSING UNDUE STRESS WHEN AIRCRAFT IS SUBJECTED TO PRESSURIZATION. THIS DEFECT HAS BEEN NOTED ON ANOTHER AIRCRAFT OF SAME TYPE AT THIS REPAIR STATION.					
PILATS PC1245	PWA PT6A67B	SWITCH 9738132212	OVERHEATED ECS	08/04/2003	
(CAN) DURING TAKEOFF THE BREAKER OF THE ENVIRONMENTAL CONTROL SYSTEM POPPED OUT. AFTER VERIFICATION OF THE PROBLEM, AND DISCOVERED THAT THE SWITCH WAS BEING OVERHEATED. BUT FOUND NO TRACES OF BURN MARKS OR OVERHEATED ON THE SWITCH AFTER REMMOVAL AND A NEW SWITCH WAS BEING INSTALLED. SWITCH P/N 973.81.32.212 (53183-110)					

PILATS PC1245	PWA	HEATER PT6A67B	INTERMITTENT AOA SENSOR	08/13/2003	
(CAN) PILOT REPORTED THAT AMBER 'AOA DEICE' LAMP ILLUMINATED INTERMITTENTLY ON ANNUNCIATOR PANEL. CLOSE INSPECTION OF AOA DEICE SYSTEM WITH CONTINUITY TESTER INDICATED FLUCTUATION IN METER READINGS WHEN NOSE CONE OF SUSPECTED AOA WAS HEATED AND COOLED. AOA TRANSMITTER REPLACED WITH SERVICEABLE SPARE. DEFECT ELIMINATED.					
PILATS PC1245	PWA	SYMBOL	FAILED	08/24/2003	
(CAN) NR 1 SYMBOL GENERATOR FOR THE CAPTAIN'S ELECTRONIC FLIGHT INSTRUMENTS CAUSED BOTH UPPER AND LOWER CATHODE RAY DISPLAY TUBES TO FAIL ON THE CAPTAIN'S SIDE. UPPER AND LOWER C.R.T.'S ON THE CAPTAIN'S SIDE WOULD INTERMITTENTLY GO INTO SELF TEST, AND WOULD ONLY SHOW 'SELF TEST' ON THE SCREENS OR BE COMPLETELY BLANK, NO FLIGHT DATA WAS AVAILABLE. NR 1 AND 2 SYMBOL GENERATORS WERE SWAPPED AND THE FAILURE FOLLOWED TO THE NR 2 (CO-PILOT) SIDE SYMBOL GENERATORS WERE RETURNED TO THEIR ORIGINAL LOCATION. NR 1 SYMBOL GENERATOR WAS REPLACED AND RECONFIGURED IN ACCORDANCE WITH THE MAINTENANCE					
PIPER PA18150	LYC	BARREL	DAMAGED	07/01/2003	
UPON INSPECTION FOUND TURN BARREL THAT HAS GROOVE FOR CLIPS SPLIT LOCATION UPPER RT ALIRON TURNBUCKLE ONLY FOUND THESE STYLE TURN BARRELS THAT DONT REQUIRE SAFETY WIRE ON LATER AIRCRAFT. FOUND THIS BEFORE AND COULD CAUSE LOSS OF AILRON CONNTROL IF BROKEN.					
PIPER PA22160	LYC	CLIP	BENT	05/14/2003	
ON ROLL OUT AFTER LANDING AC GROUND LOOPED TO RIGHT. FOUND LEFT TAIL SPRING ATTACH CLIP EARS OPENED UP. STEERING CHAIN DISCONNECTED. PILOT STATED NO SHIMMY.					
PIPER PA23250	LYC	WIRE	BROKEN	07/25/2003	
(CAN) ON APPROACH THE NOSE GEAR INDICATION LIGHT WAS NOT ILLUMINATED. AFTER A FEW RETRACTIONS OF THE LANDING GEAR, THE PILOT PERFORMED A LOW APPROACH TO OVERSHOOT TO CONFIRM VISUALLY THAT THE GEAR WAS DOWN. A PRECAUTIONARY ENGINE OFF LANDING WAS CARRIED OUT. FURTHER INSPECTION REVEALED THAT A WIRE LEADING TO THE NOSE LANDING GEAR MICRO SWITCH WAS BROKEN. THE WIRE WAS REPAIRED AND THE AIRCRAFT WAS RETURNED TO SERVICE.					
PIPER PA23250	LYC	HORN	CORRODED	08/18/2003	6154
DURING COMPLIANCE OF AD, THE FLAP TUBE WAS FOUND NOT TO PASS. A NEW STEEL TUBE WS ORDERED AND IN THE REPLACEMENT PROCEDURE THE LEFT BELLCRANK (PN 16424-00) WAS FOUND TO HAVE RUST INSIDE. USING AN AWL TO PUSH ON THE RUSTED AREAS, IT COLLAAPSED THE WALLS. WATER HAD COLLECTED IN THE AREA BETWEEN THE WALLS AND ROTTED THE STEEL. NO DRAIN HOLES ARE LOCATED IN THAT AREA. THE AD DOES NOT CALL FOR AN INSPECTION OF THIS PART.					
PIPER PA25260	LYC	AXLE	FATIGUED	06/23/2003	5800
AIRCRAFT LANDED ON SOFT FIELD WITH A LANDING WEIGHT OF 2850 LB. THE MAX. CERTIFIED GROSS WT 2900 LB. AFTER TOUCH DOWN, APPROX 200FT DOWN THE RUNWAY. THE RIGHT MAIN AXLE FAILED. THE AXLE WAS NOT ORIGINAL EQUIPMENT, LANDING GEAR UNDER STC SA441SW. THE AXLE WAS MACHINED FROM A SOLID PIECE OF ALUMINUM. THE BRAKE OCCURED AT THE TRANSITION OF THE AXLE TO THE MOUNTING FLANGE. RECOMMENDATIONS: AVOID LANDING AT OR NEAR GROSS WEIGHT. INSPECT ALL REMAINING AXLES OF THIS TYPE PRIOR TO FURTHER FLIGHT. CENTER BORE THE ALUMINUM SOLID AXLES AND INSERT A STEEL TUBE. REPLACE ALL SOLID ALUMINUM AXLES WITH STEEL TYPE. (EA17200307288)					
PIPER PA28140		CONTROL ARM	CRACKED	07/29/2003	5119
FOUND NWS CONTROL BRACE CRACKED ON LT SIDE. CAUSE DETERMINED TO BE CORROSION ON THE INTERIOR OF THE CONTROL TUBE. UPON INSPECTION OF THE TUBE, FOUND CORROSION ALSO FORMED ON THE RT SIDE OF THE TUBE IN THE SAME LOCATION. ODDLY CORROSION WAS ONLY PRESENT WITHIN A 1 INCH SPACE BETWEEN THE INBOARD WELD OUTWARD. ALSO FOUND THAT EACH SIDE OF THE CONTROL ARM HAD A SLIGHT BEND. RECOMMEND PARTICULAR ATTENTION DURING INSPECTIONS.					
PIPER PA28140	LYC	PRECISION	FAILED	07/19/2003	
(CAN) FLOAT VALVE AND SEAT ASSEMBLY FOUND TO BE STICKING IN THE OPEN POSITION CAUSING A HIGH FUEL LEVEL IN THE FLOAT CHAMBER. THEREFORE GIVING A RICH MIXTURE IN THE IDLE RANGE CAUSING ENGINE TO STALL IN IDLE RANGE AND ROLL-OUT ON RUNWAY. TOO CORRECT THIS CONDITION, FLOAT VALVE POLISHED ND RE-ASSEMBLED AND HAS BEEN RUNNING GOOD EVER SINCE.					
PIPER PA28160	LYC	PIPER	STRIPPER	08/12/2003	
(CAN) DURING INSPECTION OF THE FUEL GASCOLATOR AT THE ANNUAL, THE STUD FOR THE SAFETY NUT WAS FOUND TO BE STRIPPED. THE GASCOLATOR BALE WAS REPLACED WITH A NEW PART AS A RECTIFICATION TO THE PROBLEM.					
PIPER PA28161	LYC	BOLT	SHEARED	06/20/2003	10109
BYSTANDER POINTED OUT TO PILOT THAT RT MLG HAD FOLDED BACKWARDS. UPON INVESTIGATION IT WAS FOUND THAT ALL 4 STRUT CYLINDER ATTACH BOLTS WERE SHEARED OR MISSING AT THE LOWER SPAR FLANGE ATTACH POINT. AT 100 HR INSPECTION, CONDUCTED 86 HOURS PREVIOUSLY, ALL BOLTS WERE PRESENT AND GEAR DID NOT MOVE WHEN SHAKEN. IT IS SUGGESTED THAT ALL MLG GEAR ATTACH BOLTS BE WRENCH CHECKED FOR PROPER TIGHTNESS AT EACH 100 HOUR INSPECTION.					
PIPER PA28161	LYC	ARM	CRACKED	08/07/2003	
(AUS) RUDDER TRIM ARM CRACKED. FOUND DURING INSPECTION IAW AD/PA28/23 AMDT2.					
PIPER PA28181		CLIP	MISMANUFACTURE	07/15/2003	
NAVIGATION CONTROL OF NAV/COMM TOGGLED FREQUENCY UNCOMMANDED, WHICH CAUSED LOSS OF OPERATION OF VOR/LOC DURING FLT. OPERATOR COMPLAINED THAT THIS CONDITION MADE NAV UNRELIABLE FOR USE. TRACED PROBLEM TO KHZ NAV FREQUENCY CONTROL VERY SUSCEPTIBLE TO TRIGGERING FROM NORMAL VIBRATION DUE TO MATERIALS USED IN MANUFACTURE. ASSEMBLY REQUIRES GREATER SECURITY IN ASSEMBLY OF FREQUENCY CONTROL SWITCH AT THE LOCKING SLEEVE AND THE "C" CLIP. MOVEMENT ALLOWED BY IN EFFECTIVE ATTACHMENT BY THE "C" CLIP CAUSES PHOTO CELL TO TRIGGER, TOGGING THE NAV FREQUENCY. LOCKING SLEEVE NEEDS TIGHTER TOLERANCE WHERE THE "C" CLIP ATTACHES. IMPROVEMENT TO LOCKING SLEEVE MAY REQUIRE USE OF DIFFERENT MATERIAL, METAL IN PLACE OF NYLON.					
PIPER PA28181		CONNECTOR	BURNED	08/25/2003	4567
DURING INSTALLATION OF RYAN TCAD 9900 BX SERIES, FOUND PLUG P5 HAS SEVERAL PINS AND WIRE COATING BURNED AND MELTED. PROBABLE CAUSE IS OVER CURRENT DRAW OF LANDING LIGHT AND NAV. LIGHT SYSTEM CAUSING HIGH RESISTANCE WHICH GENERATED ENOUGH HEAT TO MELT THE PLUG AND WIRES. RECOMMENDATION IS TO INSTALL HIGHER CAPACITY PINS TO CARRY THE LOAD OF THE CURRENT.					

PIPER PA28181		SCREW 410046	LOOSE CONTROL WHEEL	07/08/2003	
DURING FLEET-WIDE INSPECTION, FOUND SCREW THAT ATTACHES CONTROL WHEEL TO CONTROL SHAFT LOOSE. RECOMMEND DIFFERENT METHOD OF ATTACHMENT OR THE USE OF A LOCKING/SAFETY DEVICE.					
PIPER PA28181	LYC O360A4M	SCREW MS24694S59	BACKED OUT CONTROL WHEEL	07/09/2003	2543
THE SCREW THAT HOLDS THE CONTROL WHEEL TO THE YOKE WAS FOUND TO BE BACKED OUT ON THE PILOTS WHEEL BY A .2500 TURN. WHEN THE SCREW BACKS OUT ENOUGH, IT FALLS OUT ALLOWING THE WHEEL TO ROTATE FREELY AROUND THE YOKE. THIS RESULTS IN NO FLIGHT CONTROL INPUT. PROBABLE CAUSE OF THE SCREW BACKING OUT IS THAT THE SCREW IS TOO SHORT. THE MS24964S59 SCREW IS 1.0937 INCH LONG WITH ONLY HALF A THREAD SHOWING					
PIPER PA28R200		BRACE 7642603	CRACKED NLG DRAG BRACE	07/01/2003	6500
DURING 100 HR INSPECTION, DISCOVERED 1.5 INCH LONG CRACK IN RT LEG OF NOSE LANDING GEAR DRAG BRACE, 1 INCH FORWARD OF ACTUATOR ATTACH POINT. AREA IS HIDDEN FROM VIEW BY DOWNLOCK SWITCH ASSY. CRACK WAS CLOSED TIGHT AND UNDETECTABLE WHEN GEAR WAS EXTENDED DOWN. WHEN GEAR WAS RAISED, ACTUATOR PRESSURE CAUSED CRACK TO OPEN .030-.040 INCH. (IF MECH HAD NOT BEEN REPLACING DOWNLOCK SWITCH, COULD HAVE POSSIBLY NOT DISCOVERED CRACK.) DOWNLOCK SWITCH HAD A (HOME MADE) STRIKER PLATE AND SWITCH WAS OUT OF ADJUSTMENT. THIS MAY HAVE LED TO EXCESSIVE STRESS OVER A PERIOD OF TIME, AT THE ACTUATOR ATTACH					
PIPER PA28R201	LYC IO360C1C6	ROD END 839307-00	WORN PROP GOVERNOR	06/18/2003	1079
DURING THE FLIGHT, ON TAKEOFF, THE ENGINE RPM WAS NOT CONSISTENT. INSPECTION OF THE PROPELLER GOVERNOR CABLE ROD END, REVEALED EXCESSIVE WEAR AT THE CONNECTION BETWEEN THE SPHERICAL BALL AND THE SOCKET IT SNAPS INTO.					
PIPER PA28R201	LYC IO360C1C6	PIPER IO360C1C6	SCREW MS24694S59	UNDERSIZE CNTRL WHEEL	07/09/2003 1464
THE SCREW THAT HOLDS THE CONTROL WHEEL TO THE YOKE WAS FOUND TO BE BACKED OUT ON THE PILOTS WHEEL BY A .2500 TURN. WHEN THE SCREW BACKS OUT ENOUGH, IT FALLS OUT ALLOWING THE WHEEL TO ROTATE FREELY AROUND THE YOKE. THIS RESULTS IN NO FLIGHT CONTROL INPUT. PROBABLE CAUSE OF THE SCREW BACKING OUT IS THAT THE SCREW IS TOO SHORT. THE MS24964-S59 SCREW IS 1.0937 INCH LONG WITH ONLY HALF A THREAD SHOWING THROUGH THE NUTPLATE.					
PIPER PA31325	LYC GARRTT	SHAFT LTIO540F2BD	SHEARED TURBOCHARGER	07/22/2003	
(CAN) AFTER TAKEOFF, PILOT NOTICED A LOSS OF MANIFOLD PRESS ON RT ENG. RETURNED TO AIRPORT. SAW FLAMES, SHUTDOWN & FEATHERED PROP. LANDING UNEVENTFUL. DURING TAXI & AFTER STOP, ENG CONTINUED TO SMOKE. DURING INSPECT, OIL COVERED EXHAUST & TURBOCHARGER. COMPRESSOR OF TURBOCHARGER DAMAGED. BLADES BROKEN, CURLED BACK & NICKED. COMPRESSOR LOOSE IN HOUSING & DAMAGE APPEARS TO BE CAUSED BY BLADE CONTACT. INSPECT TURBINE. TURBINE WAS MISSING, DEPARTED A/C THROUGH EXHAUST. DUE TO SHAFT FAILURE, OIL BEING PUMPED PAST SEAL INTO INDUCTION SYS & CAUSING SMOKE, OIL BURNED IN CYLINDERS. TURBOCHARGER REMOVED & DISASSEMBLED FOR INSPECT. OIL PASSAGES TO BEARING WERE CLEAR. BUSHINGS LOOK LIKE THEY PILED UP & SHAFT TWISTED.					
PIPER PA31350		WIRE 475213	BURNED OUT BLOWER MOTOR	08/21/2003	5694
DURING CRUISE FLIGHT, ODOR OF SMOKE WAS NOTED COMING FROM FORWARD COMPARTMENT. DIVERTED TO NEAREST LANDING LOCATION. LANDED WITHOUT INCIDENT. IT WAS NOTED THAT THE AIR CONDITIONING VENT BLOWER CB WAS TRIPPED. NO FURTHER SMELL OR SMOKE WAS NOTED, LANDING WAS STILL EXECUTED. UPON INSPECTION, IT WAS NOTED THAT THE RT VENT BLOWER MOTOR WIRING WAS DAMAGED AT POINT WHERE WIRES GO THROUGH TO THE INTERNAL MOTOR. THERE WAS NO GROMMET OR PROTECTIVE COVERING OVER WIRING TO PREVENT IT FROM CHAFING TO BRONZE BUSHING SURROUNDING IT. SHORT CIRCUIT TO GROUND TRIPPED BREAKER AND ISOLATED THE FAULT. REPLACEMENT MOTOR PN 475-213 IS IMPROVED TO HAVE A NON METALLIC GROMMET SURROUNDING WIRING THAT GOES THROUGH TO MOTOR.					
PIPER PA31350	LYC LTIO540J2BD	BUSHING L227667A	MISINSTALLED ENGINE	07/11/2003	
(AUS) RT ENGINE OIL FILTER CONTAMINATED WITH FINE ALUMINIUM/BRONZE METAL PARTICLES. STRIP AND INSPECTION FOUND THAT THE SOURCE OF THE METAL CONTAMINATION WAS FROM THE VALVE ROCKER THRUST WASHER AREAS. SEVERAL OF THE ROCKER PEDESTAL BUSHES HAD BEEN INSTALLED PROUD OF THE THRUST FACE AT MANUFACTURE. THIS HAS RESULTED IN THE THRUST WASHERS INITIALLY BEARING ON THE EDGE OF THE BUSHINGS, EVENTUALLY WEARING THEM DOWN, THEN ON TO THE ROCKER PEDESTAL THRUST FACES. SOME OF THE BUSHING MATERIAL RUBBED OFF DURING THIS TIME HAD LODGED BETWEEN THE THRUST WASHERS AND PEDESTALS RESULTING IN ABRASION OF THE THRUST FACE. PERSONNEL/MAINTENANCE ERROR.					
PIPER PA31350	LYC TIO540J2BD	TRIM TAB TIO540J2BD	MISRIGGED ELEVATOR	07/22/2003	
(AUS) ELEVATOR TRIM TAB INCORRECTLY RIGGED. TABS OPERATED IN THE OPPOSITE DIRECTION TO WHAT WAS SELECTED. PERSONNEL/MAINTENANCE ERROR.					
PIPER PA31350	LYC TIO540J2BD	CRANKSHAFT LW10346	SHEARED ENGINE	08/20/2003	
(CAN) PILOT DEPARTED NORWAY HOUSE FOR WINNIPEG. AFTER REACHING CRUISE ALTITUDE THE L/H ENGINE RAN ROUGH FOR A SHORT PERIOD OF TIME THEN FEATHERED ON ITS OWN AND SHUT DOWN. THE PILOT RETURNED TO NORWAY HOUSE AND LANDED UNEVENTFULLY. ON THE GROUND IT WAS DETERMINED THAT WHEN THE PROPELLER WAS TURNED THROUGH BY HAND THAT PISTONS IN CYLINDERS 6, 5, 4, & 3 WERE NOT MOVING. THE L/H ENGINE WAS REPLACED AT NORWAY HOUSE AND THE AIRCRAFT RETURNED WITH OUT FURTHER INCIDENT. INVESTIGATION OF THE FAILED ENGINE IS ON-GOING. PRELIMINARY INVESTIGATION SHOWS THAT THE CRANKSHAFT SHEARED IN 2 PLACES					
PIPER PA31350	LYC TIO540J2BD	TRUNNION 4027300	CRACKED NLG	07/10/2003	
(CAN) NOSE LANDING GEAR HOUSING (TRUNNION) PIPER PN 40273-00 NOTED CRACKED DURING WALK AROUND INSPECTION. APPROXIMATELY 6 INCHES CRACK FROM RIGHT SIDE STEERING STOP UP AND BACK ON HOUSING. THE TYPE OF CRACKING RESULTS FROM OVER STEERING OR EXCESSIVE PULL DURING GROUND HANDLING. THE CRACK PROBABLY PROGRESSED TO BE VISIBLE ON THE PROCEEDING LANDING.					
PIPER PA44180		AIR BOX 86245-836	BROKEN CARBURETOR	08/08/2003	333
PILOT REPORTED SURGING ENGINE AND LOSS OF POWER IN FLIGHT. MECHANIC FOUND DUCT ON CARB AIRBOX FROM INDUCTION FILTER COMPLETELY BROKEN OFF. PARTIALLY BLOCKING INTAKE. REPLACED COMPLETE ASSY.					
PIPER PA44180		AIR BOX 86245034	CRACKED ENGINE	08/13/2003	349
ENGINE AIRBOX CRACKED IN THE FLANGE AREA WHERE THE CARB HEAT CABLE ATTACH BRACKET IS ATTACHED TO THE AIRBOX ASSEMBLY WITH TWO RIVETS. THIS IS A CONSTANTLY CRACKING AREA ON THE AIRBOX. MFG IS WELL AWARE OF THE PROBLEM AND HAS BROUGHT OUT AAN (IMPROVED) ASSEMBLY P/N 86245-836 WHICH IS SUPPOSED TO SOLVE THE PROBLEM.					

PIPER PA44180	LYC O360*	AIRBOX 86245036	CRACKED RTCARBURETTOR	07/10/2003	125
DURING SCHEDULED INSPECTION, RT ENGINE CARB AIRBOX WAS FOUND TO BE CRACKED ADJACENT TO 3 OF THE 4 CARB MOUNTING HOLES. RESEARCH OF FLEET MECHANIC RECORDS INDICATE THIS IS THE SECOND AIRBOX IN 2 WEEKS TO BE FOUND CRACKED IN THE SAME AREA.					
ROBSIN R22BETA		BEARING A1814	FAILED ENGINE OUTPUT	07/01/2003	838
AIRCRAFT EXPERIENCED CLUTCH LIGHT DURING FLIGHT AND MADE PRECAUTIONARY LANDING IN PARKING LOT. NO DAMAGE TO AIRCRAFT DUE TO LANDING. EXAMINATION OF AIRCRAFT FOUND LOWER DRIVE BELT PULLEY BEARING FAILURE. PART TT 838.6, OVERHAUL LIFE OF PART 2200 HOURS. BEARING ASSEMBLY LAST INSPECTED 42.9 HOURS PRIOR TO FAILURE. ASSEMBLY PART NUMBER: A007-5					
ROBSIN R22BETA	LYC O320*	PIN A4372	BROKEN FLT CONTROLS	06/25/2003	508
DURING OTHER MAINTENANCE INSPECTION REVEALED COLLECTIVE JACK SHAFT MOVED FORE AND AFT. AFTER FURTHER INSPECTION, FOUND TAB PIN A437-2 BROKEN BETWEEN MOUNTING HOLE AND RODE END THRU HOLE.					
ROBSIN R22BETA	LYC O320B2C	BRACKET A1851	CRACKED ENG AIR BAFFLE	07/31/2003	
(AUS) ENGINE COOLING SCROLL BRACKET CRACKED FROM NOTCH ON RT SIDE OF THE BRACKET TO THE BOLT HOLE THEN CONTINUING FOR APPROXIMATELY 12.7MM (0.5IN) PAST THE BOLT HOLE TOWARDS THE CENTER OF THE BRACKET. FOUND DURING INSPECTION IAW AD/R22/24 AAMDT1. CLUTCH ACTUATOR UP LIMIT MICROSWITCH FAILED.					
ROBSIN R22BETA	LYC O360J2A	MAGNETO 1O1630052	WORN ENGINE	07/07/2003	51
(AUS) MAGNETO CASE SCREWS LOOSE CAUSING FRETTING BETWEEN CASE HALVES. METAL CONTAMINATION OF					
ROBSIN R22BETA	LYC O360J2A	DRIVE BELT A1902	DISTORTED CLUTCH MOTOR	04/30/2003	
(AUS) ENGINE TO TRANSMISSION DRIVE BELTS STRETCHED. CLUTCH MOTOR DAMAGED.					
ROBSIN R22BETA	LYC O360J2A	SHAFT A6422	DEFECTIVE ENGINE FAN	07/10/2003	413
FANSHAFT SHEARED, WHILE AIRCRAFT WAS IN A HOVER, CAUSING THE COOLING FAN TO DROP INTO THE SCROLL. CAUSE UNKNOWN, BUT BELIEVED TO HAVE STARTED WITH A CRACK CAUSED BY A MANUFACTURING DEFECT.					
ROBSIN R44	LYC O540F1B5	GASKET ENGINE	DAMAGED	06/16/2003	
(AUS) ENGINE OIL FILTER INTERNAL RUBBER GASKET DAMAGED. A PIECE OF THE RUBBER GASKET WAS FOUND TO BE STUCK UNDER THE OIL PRESSURE RELIEF VALVE CAUSING LOSS OF OIL PRESSURE. NEW FILTER HAD BEEN FITTED APPROXIMATELY ONE HOUR PREVIOUSLY. FURTHER INVESTIGATION FOUND THE OIL LINES WERE CROSSED DURING INSTALLATION OF AIR WOLF SPIN-ON OIL FILTER MODIFICATION. ENGINE OIL PRESSURE FRACTURED THE FILTER HOUSING INTERNAL RUBBER CHECK VALVE ON START-UP. RUBBER PARTICLES CIRCULATED IN THE OIL SYSTEM UNTIL ONE FRAGMENT UNSEATED THE ENGINE OIL PRESSURE REGULATING VALVE, CAUSING LOSS OF OIL PRESSURE. FRAGMENTS OF THE RUBBER CHECK VALVE. ERROR DUE TO CONFUSING INSTRUCTIONS IN THE DATA SENT WITH THE KIT.					
SOCATA TB107OBAGO	LYC O360A1A	SPAR TB1011011101	CORRODED RT WING	07/24/2003	
(AUS) RT WING MAIN SPAR UPPER CAP CONTAINED CORROSION ON THE AFT FACE. RT WING LEADING EDGE INTERCOSTAL CONTAINED CORROSION ON THE LOWER FLANGE. FOLLOWING REMOVAL OF WINGS FOR REPAIR FURTHER CORROSION WAS FOUND ON THE TOP SURFACE OF THE LT AND RT MAIN SPAR UPPER CAP NEAR THE SPAR JOINT.					
SOCATA TB107OBAGO	LYC O360A1A	FITTING TB1079011315	CORRODED COCKPIT	05/23/2003	
(AUS) REAR SEAT BELT OUTBOARD FITTINGS CONTAINED EXFOLIATION CORROSION.					
SOCATA TB107OBAGO	LYC O360A1A	BRACKET TB1032000111	CORRODED RUDDER	05/25/2003	
(AUS) RUDDER LOWER HINGE SUPPORT BRACKET CONTAINED EXFOLIATION CORROSION. FOUND DURING INSPECTION IAW AD/TB10/31.					
SOCATA TB107OBAGO	LYC O360A1D	FITTING TB203421102	CRACKED ELEVATOR	08/15/2003	
(AUS) ELEVATOR HINGE FITTING BRACKET CRACKED.					
SOCATA TBM700	PWA PT6A64	TURNBUCKLE N7799233627	UNSAFETIED RUDDER CONTROL	05/30/2003	97
DURING THE FIRST ONE HUNDRED HOUR INSPECTION OF THIS AIRCRAFT THE AFT TURNBUCKLE FOR THE RUDDER SYSTEM, AS VIEWED THROUGH ACCESS DOOR 311, HAD FIVE THREADS EXPOSED ON LOWER END AND FOUR THREADS EXPOSED ON UPPER END. BOTH ENDS WERE SAFETIED WITH CLIPS. CLOSE INSPECTION ON ALL TURNBUCKLES BOTH FOR EXPOSED THREADS AND PROPER SAFETIES DURING FIRST 100 HOUR INSPECTION.					
(AUS) PITCH TRIM SERVO ACTUATOR LOWER ATTACHMENT POINT PIVOT BUSHING MISSING AND ATTACHMENT BOLTS					
UNIVAR 1083		BEARING 12537101	LOOSE ZONE 500	08/13/2003	940
LDC873FT AILERON WAS REMOVED FOR OTHER MAINTENANCE. WITH THE AILERON REMOVED IT WAS DISCOVERED THAT THE BEARING MOUNTED IN THE ROLL TRIM MOTOR ASSY. (P/N-12546-001) WAS LOOSE. THIS BEARING IS INSTALLED WITH A LIQUID LOCKING PRODUCT AND SUBJECTED TO A LOAD TEST PRIOR TO INSTALLATION. IT IS NOT KNOWN HOW THIS BEARING COULD HAVE COME LOOSE. IT IS VERY DIFFICULT TO INSPECT THIS INSTALLATION WITH THE AILERON INSTALLED. THIS BEARING SHOULD BE INSTALLED ANY TIME THE LEFT AILERON IS REMOVED.					
UNIVAR 415C	CONT	FUEL LINE C7512F	WRONG PART NACELLE	08/06/2003	239
DURING AN ANNUAL INSPECTION THE FUEL HOSES THAT ARE ROUTED FROM THE RT SIDE OF FIREWALL TO FUEL PUMP HAD BEEN SEVERLY EXPOSED TO HEAT FROM RT EXHAUST STACK CAUSING ONE HOSE TO BUBBLE UP. THESE HOSES DID NOT HAVE FIRE SLEEVE ON THEM. THIS IS AN INFLIGHT FIRE HAZARD.					
ZLIN Z242L	LYC AEIO360A1B6	CABLE Z4244120000	BROKEN ELEVATOR TRIM	07/29/2003	
(CAN) AS A RESULT OF PREVIOUS FRAYED CABLES, SPECIAL ATTENTION IS PAID TO AREAS WHERE THE ELEVATOR TRIM CABLE PASSES THROUGH PULLEYS, CABLE DRUMS. THIS CABLE HAD BROKEN STRANDS WHERE IT PASSED THOUGH THE LT AFT PULLEY. A REPLACEMENT INTERVAL OF THESE CABLES OF 3000 HRS WAS PUT IN PLACE TO PRECLUDE A RAPID DETERIORATION OF THESE CABLES, HOWEVER THIS CABLE HAD ONLY 1199.2 HRS ON IT.					

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION MALFUNCTION OR DEFECT REPORT		OPER. Control No.		8. Comments (Describe the malfunction or defect and the circumstances under which it occurred. State probable cause and recommendations to prevent recurrence.)	DISTRICT OFFICE OTHER COMPUTER FAA MFG. AIR TAXI MECH. OPER. REP/STA.	OPERATOR DESIGNATOR SUBMITTED BY: TELEPHONE NUMBER () -
		ATA Code				
		1. A/C Reg. No. N-				
Enter pertinent data	MANUFACTURER	MODEL/SERIES	SERIAL NUMBER			
2. AIRCRAFT						
3. POWERPLANT						
4. PROPELLER						
5. SPECIFIC PART (of component) CAUSING TROUBLE						
Part Name	MFG. Model or Part No.	Serial No.	Part/Defect Location.			
6. APPLIANCE/COMPONENT (Assembly that includes part)						
Comp/Appl Name	Manufacturer	Model or Part No.	Serial Number			
Part TT	Part TSO	Part Condition	7. Date Sub.	Optional Information: Check a box below, if this report is related to an aircraft <input type="checkbox"/> Accident; Date _____ <input type="checkbox"/> Incident; Date _____		

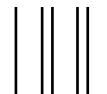
FAA FORM 8010-4 (10-92) SUPERSEDES PREVIOUS EDITIONS

Use this space for continuation of Block 8 (if required).

U.S. Department
of Transportation
**Federal Aviation
Administration**

Flight Standards Service
Aviation Systems Branch
P.O. Box 25082
Oklahoma City, OK 73125-5029
AFS-620

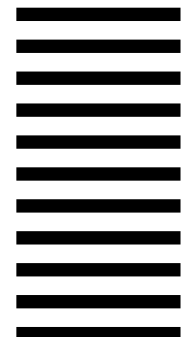
Official Business
Penalty for Private Use \$300



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 12438 WASHINGTON, D. C.



Federal Aviation Administration
AFS-620 (Alerts)
P.O. Box 25082
Oklahoma City, OK 73125-5029